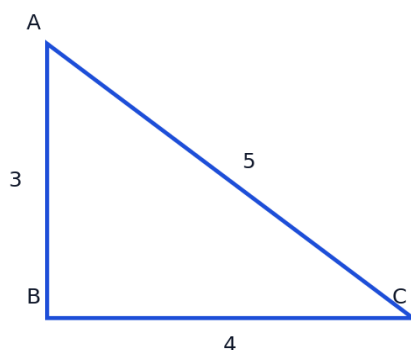


Problems | Name: _____

3.1 Congruence Criteria

3.1.1. Triangle ABC has sides $AB = 3$, $BC = 4$, $AC = 5$. Triangle DEF has $DE = 3$, $EF = 4$, $DF = 5$. State a valid congruence correspondence.

A 3-4-5 right triangle



Code Scholars Tutoring | codescholarstutoring.com

The right angle is at B; the hypotenuse AC has length 5.

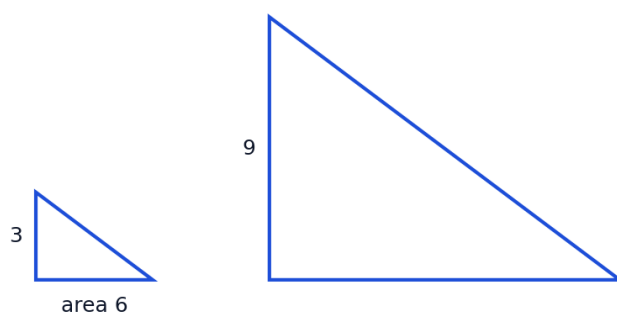
3.1.2. Why is AAA insufficient for congruence?

3.1.3. Two right triangles have equal hypotenuses and one matching leg. Are they congruent?

Problems | Name: _____

3.2 Similarity and Proportion

3.2.1. Similar triangles have corresponding sides 3 and 9. If the smaller area is 6, find the larger area.



Code Scholars Tutoring | codescholarstutoring.com

The corresponding length ratio is 9 to 3.

3.2.2. Triangles have angles $40^\circ, 60^\circ, 80^\circ$ and $60^\circ, 80^\circ, 40^\circ$. Are they similar?

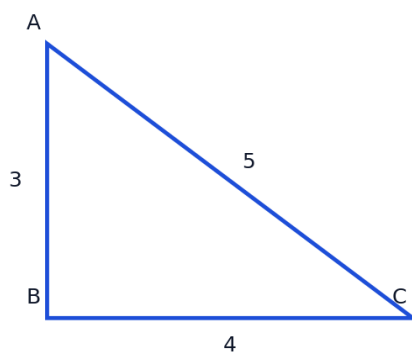
3.2.3. A map uses 1 cm for 4 km. What real distance corresponds to 7.5 cm?

Problems | Name: _____

3.3 Right Triangle Relationships

3.3.1. In a 3-4-5 right triangle, find sine, cosine, and tangent of the angle opposite the side of length 3.

A 3-4-5 right triangle



Code Scholars Tutoring | codescholarstutoring.com

The right angle is at B; the hypotenuse AC has length 5.

3.3.2. A ladder 13 ft long rests against a wall with its base 5 ft from the wall. How high does it reach?

3.3.3. An isosceles right triangle has legs 7. Find its hypotenuse exactly.